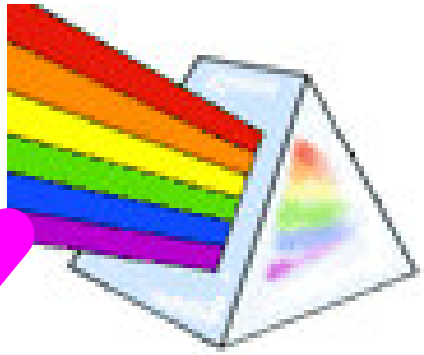
OC-12 to Internet

10 Gbps
10,000,000,000 bps



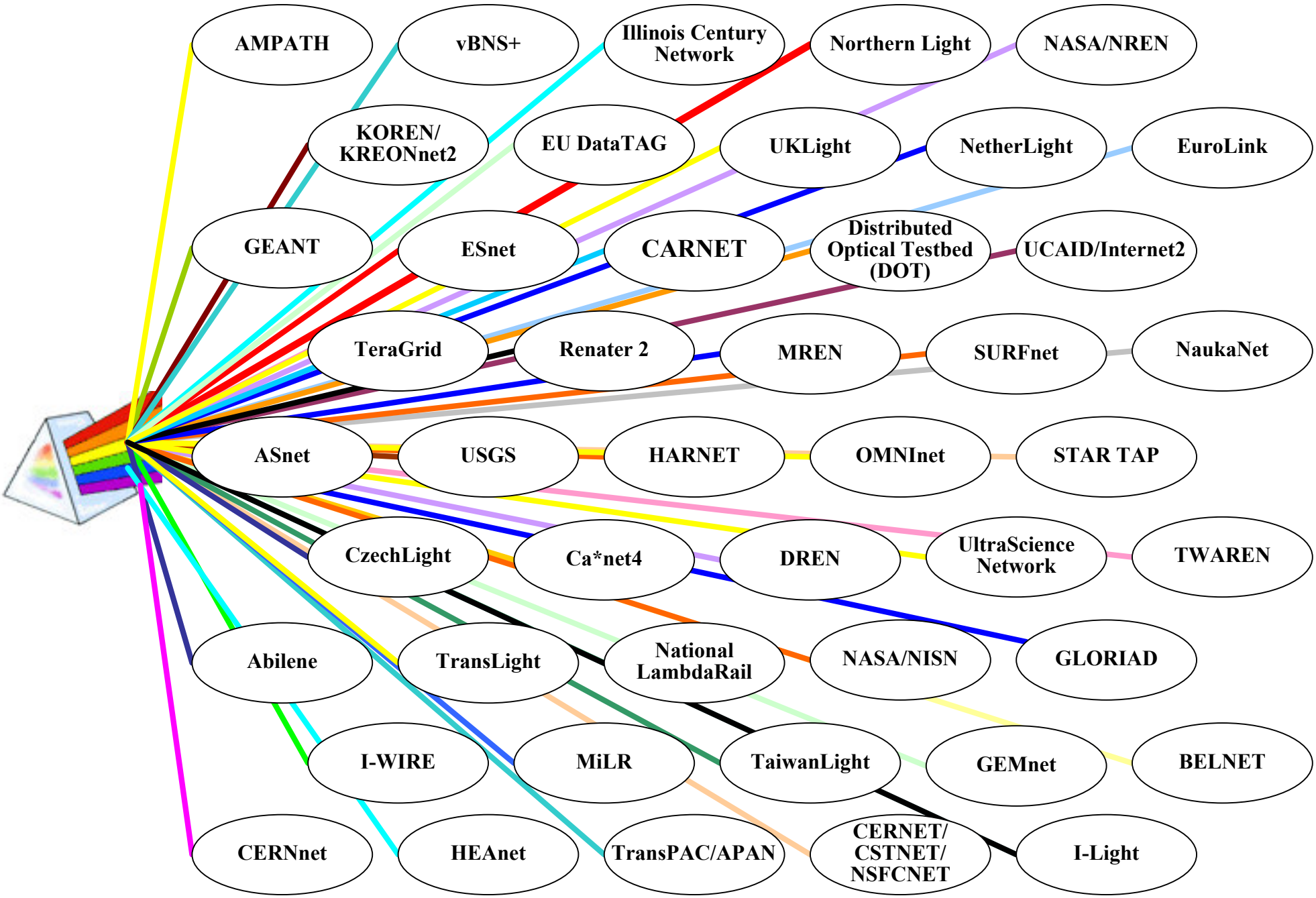
Optical Wave Division Multiplexer

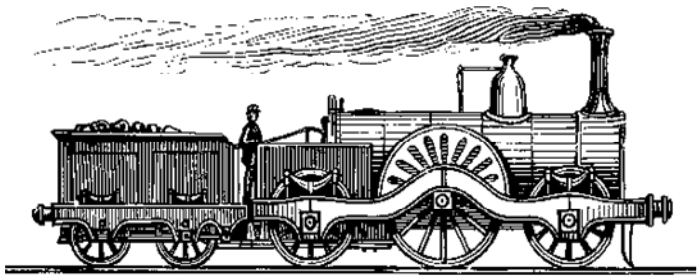
655 Mbps
655,000,000 bps

1 Gbps
1,000,000,000 bps

CORE

Fermilab Campus Network


AMPATH
vBNS+
Illinois Century Network
Northern Light
NASA/NREN
KOREN/ KREONnet2
EU DataTAG
UKLight
NetherLight
EuroLink
GEANT
ESnet
CARNET
Distributed Optical Testbed (DOT)
UCAID/Internet2
TeraGrid
Renater 2
MREN
SURFnet
NaukaNet
ASnet
USGS
HARNET
OMNInet
STAR TAP
CzechLight
Ca*net4
DREN
UltraScience Network
TWAREN
Abilene
TransLight
National LambdaRail
NASA/NISN
GLORIAD
I-WIRE
MiLR
TaiwanLight
GEMnet
BELNET
CERNnet
HEAnet
TransPAC/APAN
CERNET/ CSTNET/ NSFCNET
I-Light



"Our next stop will be Lakeshore Drive, Chicago. We will be arriving at our destination in approximately .00047198 seconds."

The speed of light through glass medium is the speed of light divided by the index of refraction. The index of refraction for single mode fiber at ~1550 nm, 8.3 micron core, 125 micron cladding is approximately 1.4695.

96.288 Kilometers

In digital communications the "eye diagram" is used to visualize how the waveforms used to send multiple bits of data can potentially lead to errors in the interpretation of those bits. This is the problem of intersymbol interference. Intersymbol interference is a distortion manifested in the temporal spreading and consequent overlap of individual pulses to the degree that the receiver cannot reliably distinguish between changes of state, i.e. , between individual signal elements.